



UNIVERSITÄT
BAYREUTH

Bayreuth Center of Ecology
and Environmental Research

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The Department of Plant Systematics at the University of Bayreuth is offering a PhD position at the earliest possible date and for a limited period of three years

PhD Position (all genders welcome)

You will work in the framework of the research program "A temperate radiation in a tropical plant family – factors underpinning evolution of the Eurasian *Vincetoxicum* (Apocynaceae) complex", in collaboration with Ukrainian and American partners.

Your work will build on the long-term experience in Apocynaceae in the Liede-Schumann lab at the University Bayreuth. Within the Apocynaceae, *Vincetoxium* constitutes one of the few temperate radiations with invasive neophytes in the New World. To understand the evolutionary history of this recent radiation, three lines of evidence will be studied focussing on the Ukraine as center of *Vincetoxicum* diversity: morphometric, molecular, and chemical. Especially, we test one of the likely factors contributing to the evolutionary success of this clade: a special chemistry in this clade featuring phenanthroindolizidine-alkaloids (PIAs). Comparative analysis will elucidate the phenotypic variation, the genetic basis, and the supposed chemical defence strategy to test the hypothesis that the most successful lineages are the ones with the best chemical defence system.

Your duties:

- Morphological study of *Vincetoxicum* specimens and databasing of results
- Preparation of a sample set for Hyb-Seq NGS study and for phenanthroindolizidine-alkaloid study
- collaboration with our American partners carrying out analysis of phenanthroindolizidine-alkaloids
- collaboration with a company carrying out the Hyb-Seq NGS library preparation and sequencing
- assembly and interpretation of NGS data in collaboration with our American partners
- publication of results in international peer-reviewed journals

Your profile:

- You hold a highly qualified Master or Diploma in Biology, preferentially in botany, with a solid background on plant evolution and diversity. Different educational backgrounds (e.g., population genetics, evolutionary biology, geoecology, or of similar adequately related research fields) are possible depending on your interest and motivation,
- have interest in and/or experience with morphological analysis and species concepts,
- have experience with bioinformatic analyses of NGS data (preferentially of Hyb-Seq sequencing data) or other big-data approaches (would be an asset),
- are proficient in scientific English and publishing and command over-average computer skills,
- are team-oriented and interested to collaborate with international partners
- Basic knowledge of Russian/Ukrainian would be an asset

The University of Bayreuth is an equal opportunities employer and particularly encourages applications from women who are under-represented in the University at this level/ in this discipline. Additionally, handicapped applicants will be preferred if equally qualified. The remuneration is based on TV-L E13 (65%).

Please send your application with the usual documents (in electronic form only) by 15th April 2020 to Prof. Dr. Sigrid Liede-Schumann (e-mail: sigrid.liede@uni-bayreuth.de), Dept. of Plant Systematics, Universitätsstrasse 30, 95440 Bayreuth. If you have any questions, please contact Prof. Dr. Sigrid Liede-Schumann (e-mail: sigrid.liede@uni-bayreuth.de).